

# Hudson's Site

## Site Plan Review Application

September 10, 2018

Address: 1208 Woodward Avenue, Detroit, MI 48226  
Owner: 1208 Woodward LLC  
Parcel ID: 01004110-9



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Detroit, MI 48226



233 Broadway 11th Floor  
New York NY 10279

HamiltonAnderson

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Detroit, MI 48226

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# I. Narrative

# Urban Concept

The vision for the Hudson's Site is to return to the site the urban vitality that the historic J.L. Hudson's department store once embodied, through a hyper mixed-use development (see Fig. 8, 9). Through thoughtful orchestration of the diverse and condensed program, the development prioritizes iconic experience over iconic form. The location of the site along Woodward Avenue between Campus Martius and Grand Circus offers the opportunity for the Hudson's Site to be a unique destination at the heart of the city and an integral part of public life in downtown Detroit (see Fig. 1).

A variety of program uses are folded into the building—Event, Exhibition, Hotel, Retail, Market Hall, Office and Residential—which is organized above grade in two volumes: the “Tower” on the southern portion of the site and the “Block” on the north (see Fig. 5, 7). Between these two volumes, a through-block plaza (the “Thru-cut”) connects Woodward Avenue to Farmer Street, drawing Library Square into the network of open spaces along Woodward.

The design of the Hudson's Site is mindful of its scale and how it settles between the neighboring Lower Woodward Avenue Historic District (also known as Merchant's Row) to the north and the larger buildings and skyscrapers of the Central Business District (CBD) to the south. The building massing is intended to mitigate the scale change between these two districts (see Fig. 2). The taller Tower volume is placed on the south side of the site, along Gratiot, closer to the CBD. The Tower massing steps down in scale from Woodward in deference to Library Square and the historical fabric to the east. The northern portion of the site is defined by the Block volume, which transitions the site in scale toward Merchant's Row and the historical fabric north of East Grand River. The stratified facade of the Block responds to the datum lines established by the many historical buildings along Woodward Avenue. Both Tower and Block facades take their cues from the heritage buildings of the city at large, from the rich materiality of their finishes to their detailing, articulation and craft. (Refer also to Building Elevations, page 55-56.)



Figure 1. Public Life Along Woodward



Figure 2. Mitigating Scale Transitions

# Massing Concept

Both Block and Tower volumes rely on their unique program experiences to define building form. For the Tower, the mix of program is unified with a laminated massing that both accentuates the verticality of the Tower while allowing a natural stepping (see Fig. 3, 4, 5). The sequence of stepping—a language that resonates with historical Detroit towers—responds to the stacked program, while breaking down the scale of the Tower in its urban context and relative to wind.

For the Block volume, horizontality is accentuated with each program layer—Retail/Market Hall, Event and Office—defining a unique relationship to the surroundings (see Fig. 4, 5, 11). The Retail storefront activates a revitalized streetscape, which articulation that complements the historical Merchant’s Row. The Event space above is slightly recessed to create wrap-around terraces. The top-most Office volume is pleated in varying degrees to lighten its presence as it rises.

In both Block and Tower the stack of program places the public attractions just atop the storefront and entry lobbies to ensure that these unique assembly spaces—Event in the Block and Exhibition in the Tower—act as beacons within the streetscape, visibly broadcasting the activities within.

The two discrete volumes of the Block and Tower, connected by a physical Sky Bridge and the pedestrian Thru-cut, allow for an increase in street frontage that both promotes street activation and provides each programmatic use a ground floor presence. The Retail frontage defines the Woodward elevation and reinforces the historical Merchant’s Row, with Residential and Hotel lobbies to the south. The key public program entries—Event, Exhibition and Office—are arranged around the Thru-cut to enhance this new pedestrian space. The Market Hall characterizes the eastern and north half of the Block (see Fig 10).

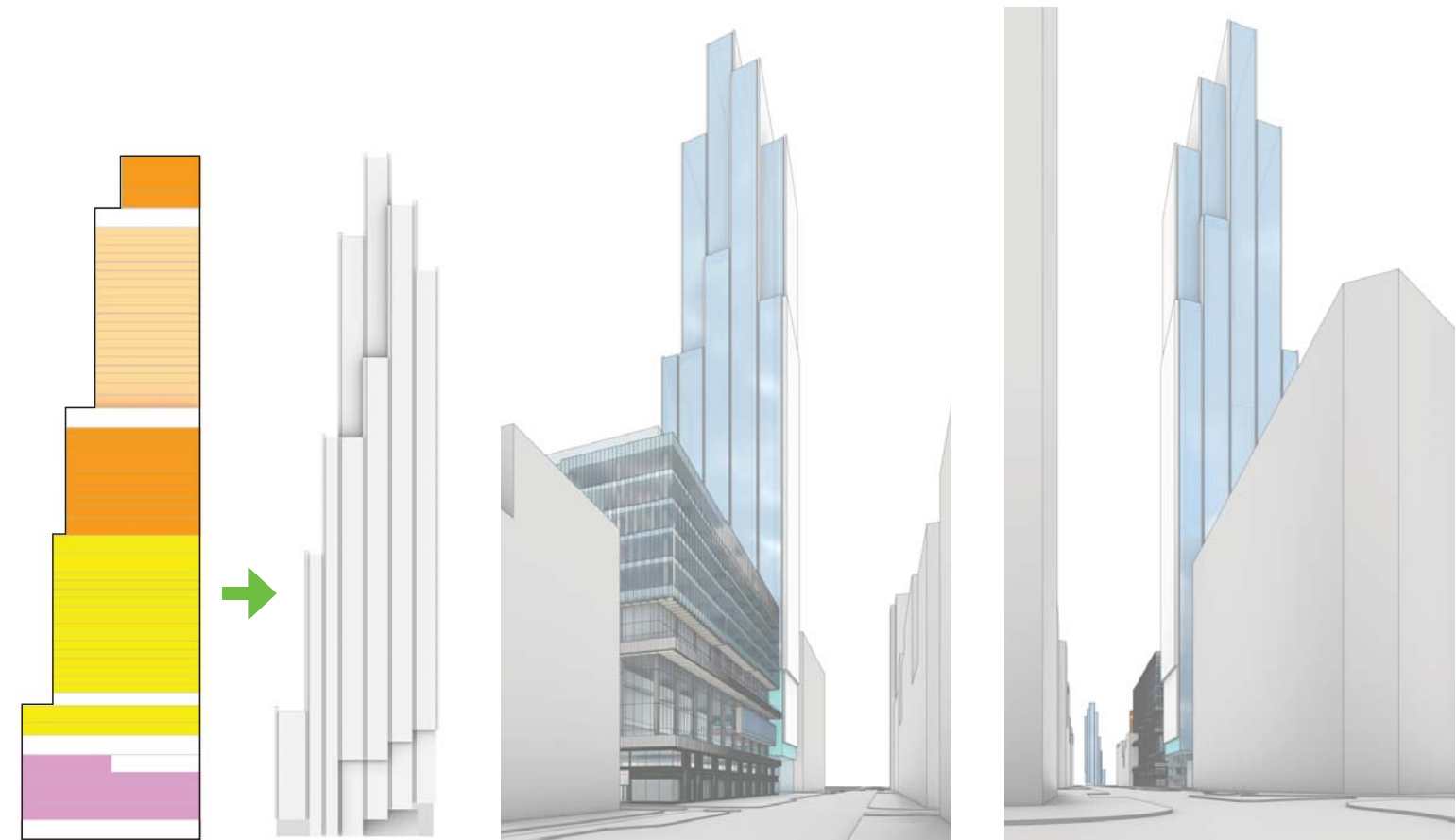


Figure 3. Tower Program Informs Massing  
Figure 4. Building Massing Along Woodward

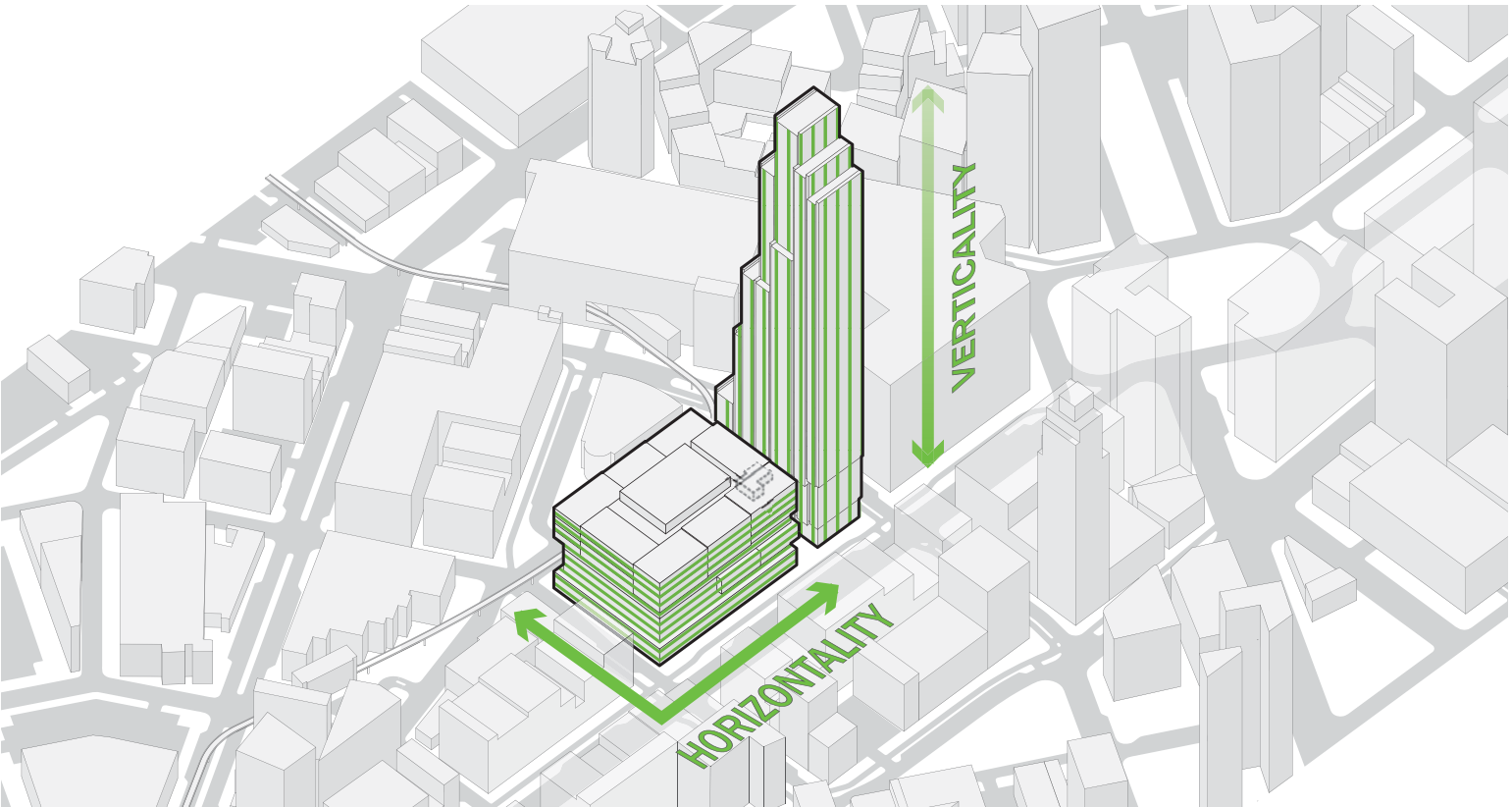


Figure 5. Complementary Composition

# Building Program

The split of 1,424,017 SF of mixed use programming between the Tower and the Block is orchestrated in response to both their complementary programming mix and the surrounding urban context.

The 62-story Tower includes 251,392 SF of Residential with 250 units; 500,735 SF of Hotel with a Sky Venue at the pinnacle of the Tower; and 77,119 SF of Exhibition. The total height of the Tower reaches up to 912 feet above street level, concealing the bulkhead and building maintenance unit.

The 14-story Block includes 343,014 SF of Office; 185,474 SF of Event; and 73,283 SF of Retail and Restaurant. The total height of the Block is 232 feet above street level.

Residential	251,392 sf
Hotel	500,735 sf
Exhibition	77,119 sf
Office	343,014 sf
Event	185,474 sf
Retail	73,283 sf
Parking, Loading, Service	
<b>Total</b>	<b>1,424,017 sf</b>

Figure 6. GSF Breakout by Program

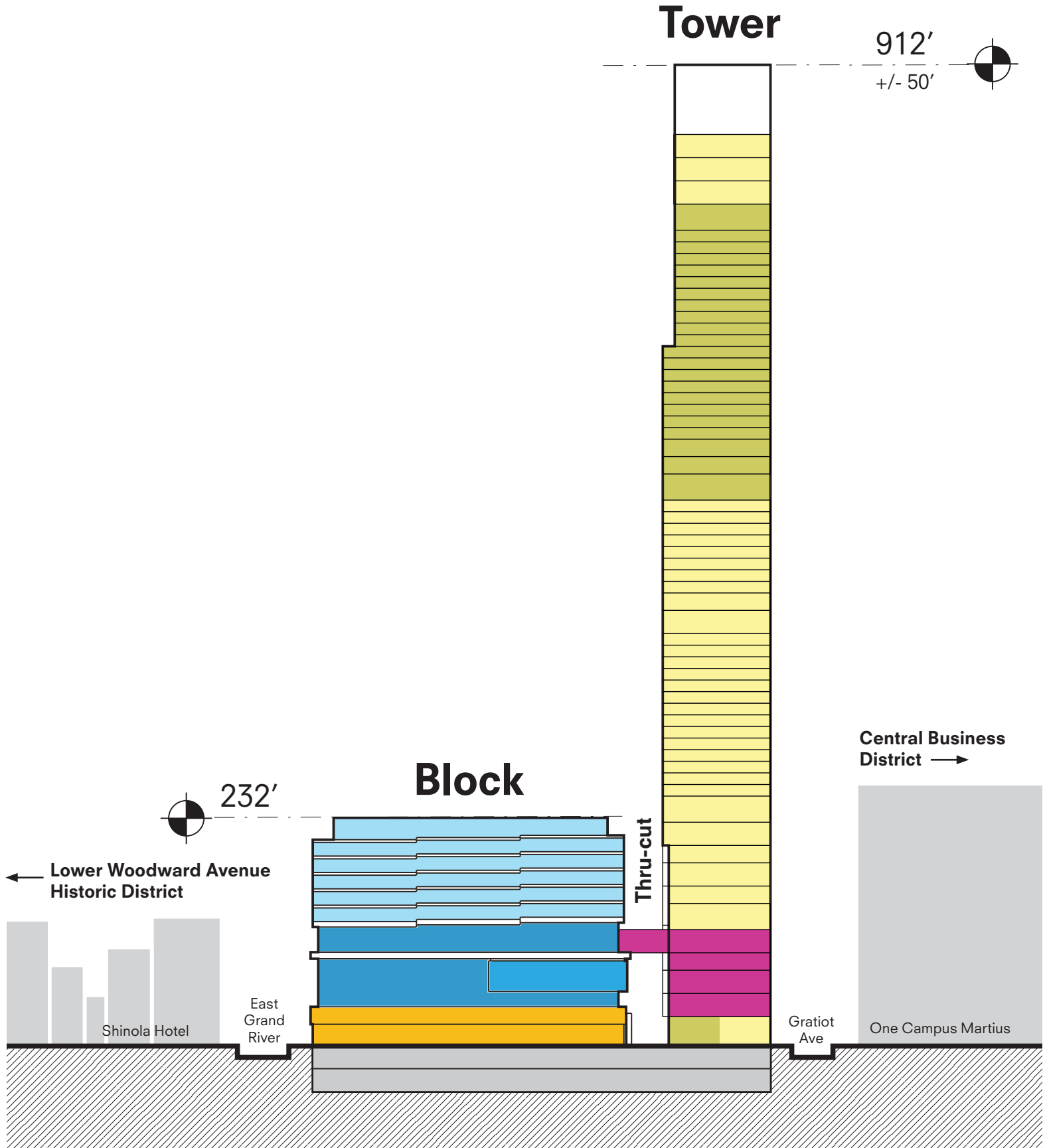


Figure 7. Program Stack



# Building Program

## Block

The Hudson's Site provides a variety of Retail and Restaurant programming between the Tower and Block, including a spirited Market Hall opening onto Farmer Street and prime leasing spaces facing Woodward Avenue.

The Retail spaces on Woodward maximize visibility to the street as well as provide flexibility to tenants with an optional mezzanine level. The Hudson's Site Retail will enhance the growing city and add vibrant activity to the Detroit city-scape. (See plan Levels 1-2, page 19-20.)

The Market Hall is both at the scale of the neighborhood and a city-wide destination, anticipating a large growth in residents, visitors and workers in downtown Detroit in the next several years. Large-scale bi-fold glass doors and a unified paving design visually and literally merge interior and exterior, allowing the market to spill into the Thru-cut and the sidewalk east along Farmer Street and north on Grand River (see Fig. 10). (See plans Level 1-2, page 19-20.)

The Event spaces at the Hudson's Site offer three venue types: a 1,250-seat multi-form Convertible Hall (see Fig. 12, 13), a ballroom overlooking Woodward Avenue with a capacity of up to 445 seats, and a collection of meeting rooms of various sizes. The Hudson's Site event spaces are a civic marker on the Woodward corridor where large glass facades showcase the activity within. The spaces also offer dramatic views out to the city that can be enjoyed by generous pre-function spaces and terraces. A Sky Bridge on Level 6 connects the Event spaces to the Exhibition Space and Hotels in the Tower. A central kitchen facility provides full-service catering to all Event spaces. (See plan Levels 3-6, pages 21-27.)

The Office space at the Hudson's Site is a dynamic workspace. The "infinite floor plate" concept provides maximum leasing flexibility for multiple tenants and fosters a vibrant and collaborative work environment at any level of demising (see Fig 14, 15). Floorplates wrap around a central atrium with a large skylight daylighting workspaces from the interior. The atrium garden forms the heart of the Office space, an animated interior landscape featuring a variety of spaces for community, lunching, working or relaxing. Satellite meeting and amenity rooms are accessed by a continuous ramp oriented to the atrium. The top floor of the Office is set back 15' from the perimeter to mitigate the scale of the building from the street; this move also provides a wrap-around terrace. (See plan Levels 7-14, pages 28-35.)

Refer also to building sections for the Block volume on pages 57-61.



Figure 8. Illustration of a "Day in the Life" at J.L. Hudson's



Figure 9. Illustration of a "Day in the Life" at the Hudson's Site



Figure 10. Conceptual Illustration of the Market Hall and Thru-cut



Figure 11. Conceptual Illustration of the Block from Woodward Drop-off



Figure 12. Illustration of Convertible Hall in flat-floor mode



Figure 13. Illustration of Convertible Hall with telescopic seating deployed

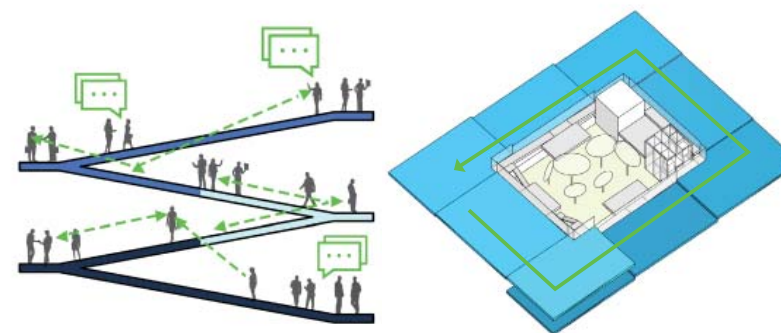


Figure 14. Infinite Floor-plate concept

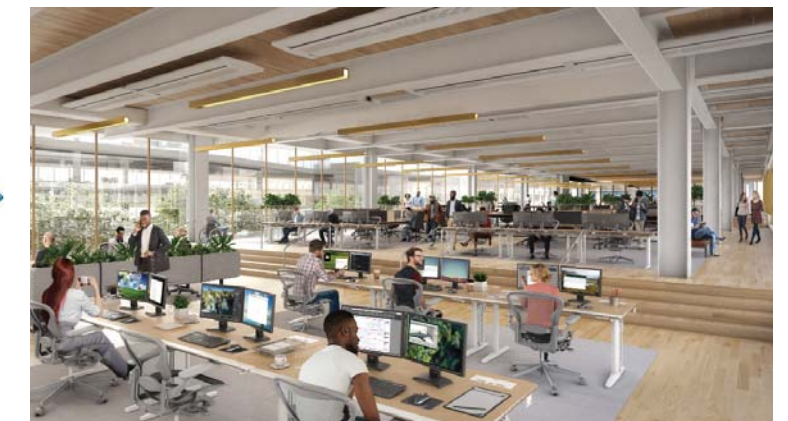


Figure 15. Illustration of interior of Infinite Floor-plate workspace

# Building Program

## Tower & Basement

The Exhibition spaces in the Tower will be a local and global destination bringing together innovations in the art and technology world. These spaces may include creator residences, labs and studios, curated installations and collective interactions in a flowing, flexible platform that will also be highly visible from the street. (See plan Levels 1-6, pages 19-27.)

The Hotel program in the mid-rise section will be offer a variety of visitor experiences with sky lobby, amenity areas and guest rooms with exceptional city views. (See plan Levels 7-37, pages 28-43.) It is anticipated the Hotel program will be subdivided between two operators with shared lobby and amenity areas.

The Residential component accommodates a variety of unit types and amenities for the contemporary and urban lifestyle, including a swimming pool, outdoor terrace spaces, fitness, family and lounge areas. (See plan Levels 38-58, pages 44-49.)

The Tower is topped off by the Sky Venue—a collection of hospitality and event spaces at the highest point above Detroit—which will offer unobstructed panoramic views to the city and beyond. (See plan Levels 59-61, pages 50-52.)

The Tower is still in Schematic Design, thus building sections are not yet available.

Below the Tower and Block lies the engine of the Hudson’s Site. The project strives to minimize the amount of frontage and facade dedicated to parking and service. Two large service elevators, accessed off Gratiot Avenue, allow trucks to be lowered below grade so that loading operation is concealed from the public. A large turntable rotates the trucks to align the loading bays. Use of the two loading areas adjacent to the Tower elevators will be subject to a strict schedule that coordinates the needs of tenants, residents, and operators. Parking is also accessed via ramp off Gratiot. The sub-grade structure provides both traditional and automated valet, with the majority of parking housed in an automated stacking system, allowing significantly more parking than would otherwise be possible. (See plan Levels B1-B2, pages 15-18.)



# Streetscape

The Hudson’s Site offers over 39,000 SF of pedestrian space for visitors, shoppers, residents, and tenants. The site will set a new standard for the Woodward Avenue streetscape and elevate the retail environment with the incorporation of street trees, updated paving, and contemporary site furnishings (see Fig. 18).

The Thru-cut promotes pedestrian activity around the clock and throughout the year. It is defined by raised planters which act as feature elements and enhance pedestrian activity. Custom concrete pavers are inspired by Michigan’s state flower, the apple blossom. The paving flows into the Market Hall and sidewalk to the east and north, unifying the indoor-outdoor program.

Along Woodward Avenue, existing street parking will be eliminated (see Fig. 17). At the south end of the block, near the Thru-cut, a two-lane drive supports drop-off for the Hotel program. The drop-off will be level with and integral to the sidewalk, defined by a stone curb. Protective barriers such as bollards are to be determined. (See enlarged plan and section, Fig. 18-19, page 10.)

Farmer Street’s curbline is realigned to better accommodate passenger drop-off for Office, Exhibition, Event and Market Hall along the entire street. The revised curbline will narrow the drive lanes on the street but will otherwise not impact circulation. A tabletop crosswalk connects the Hudson’s Site via the Thru-cut to Library Square.

Gratiot Avenue hosts the parking and loading entrance. Toward Woodward, there is short-term parking and drop-off for residents. A table-top crossing marks the pedestrian-friendly transition to Woodward Avenue.

The full length of Grand River Avenue will be tabled to slow traffic and encourage pedestrian circulation between the Hudson’s Site and the adjacent Shinola Alley to the north.

The Thru-cut and streetscape are still in schematic design.

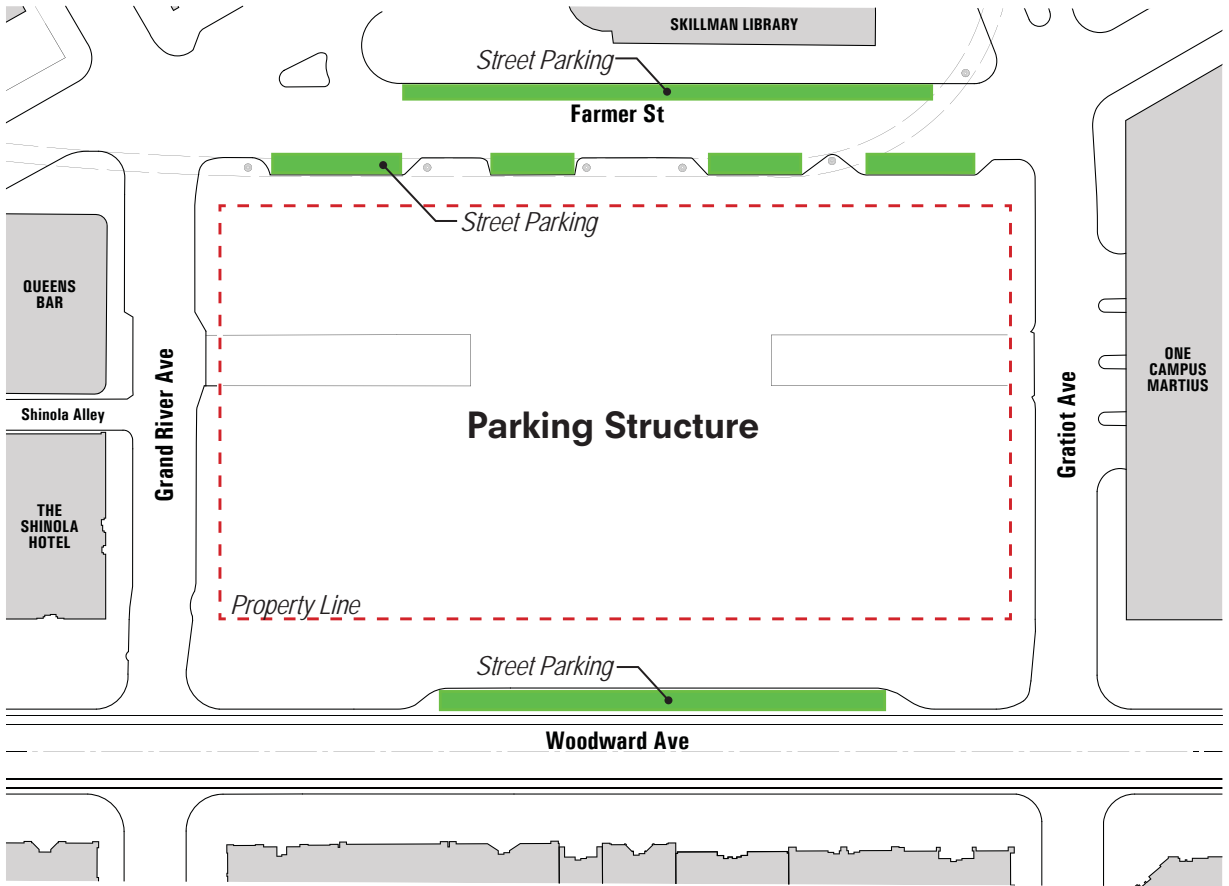


Figure 16. Existing Site Plan (pre-demolition)

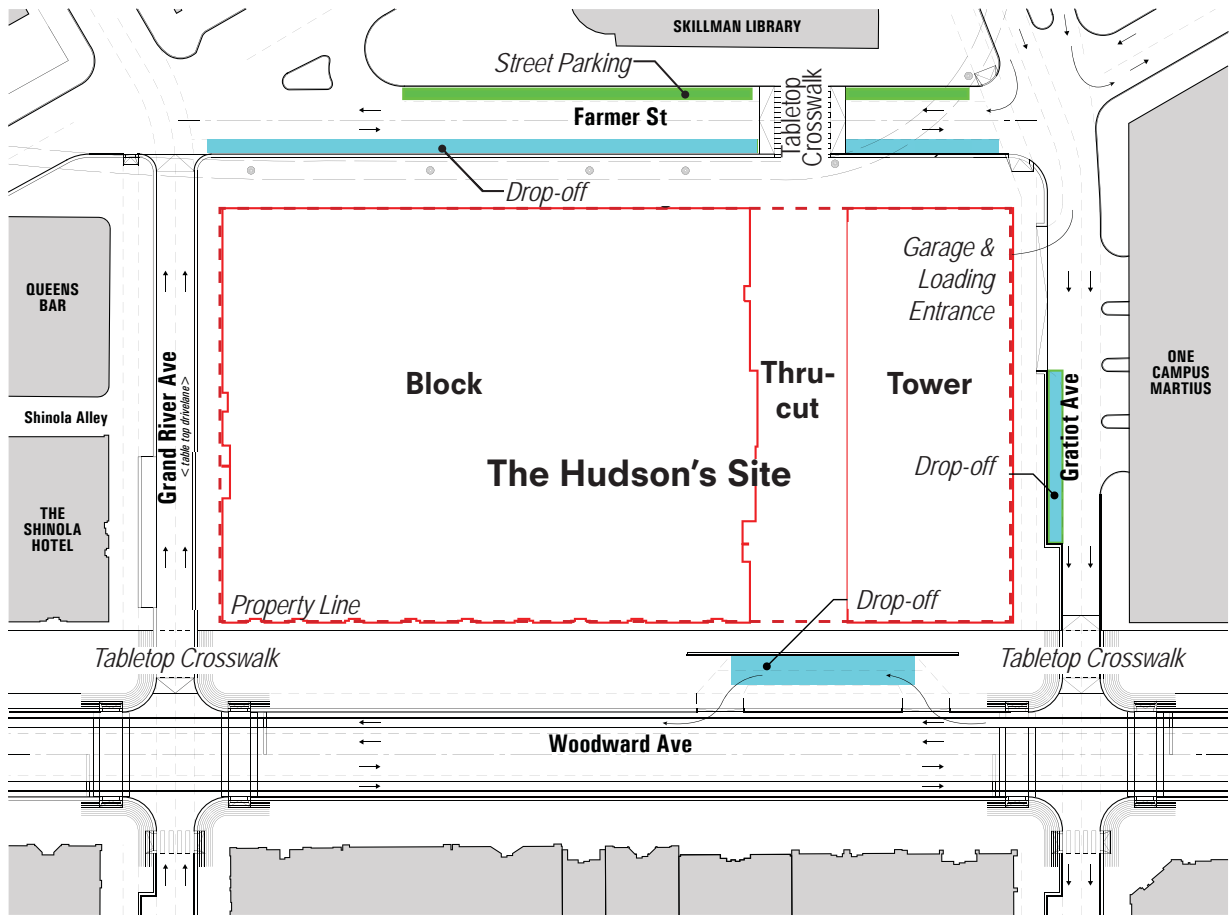


Figure 17. Proposed Site Plan

# Streetscape

## Woodward Avenue Drop-off

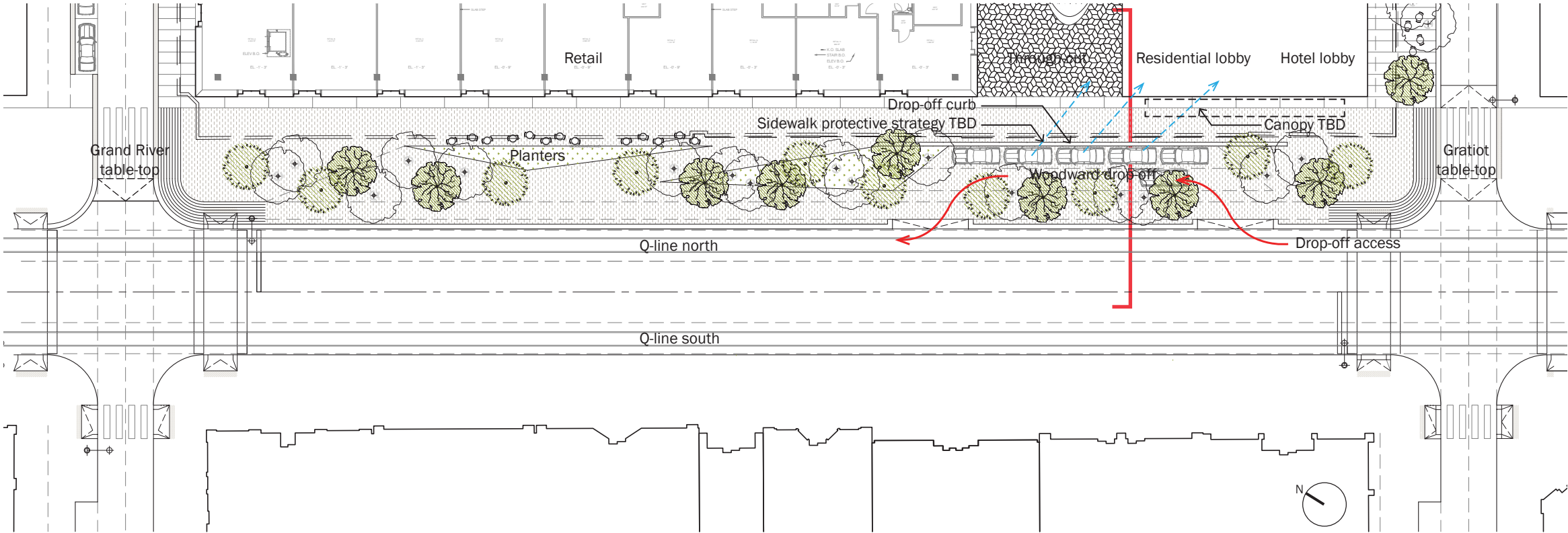


Figure 18. Enlarged Woodward Avenue Site Plan (Note: Design still in development)

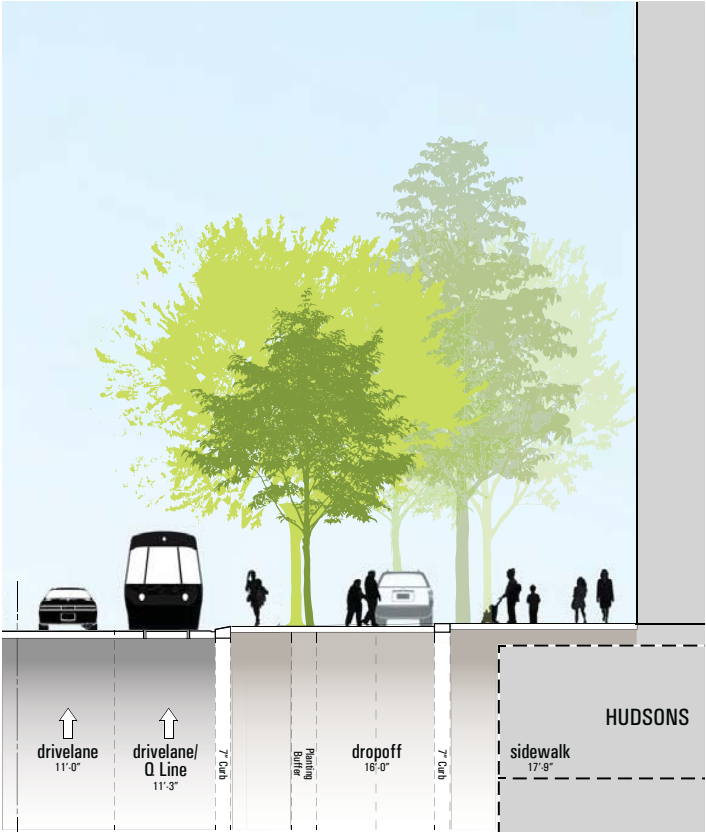
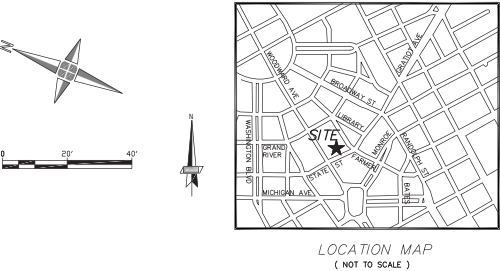
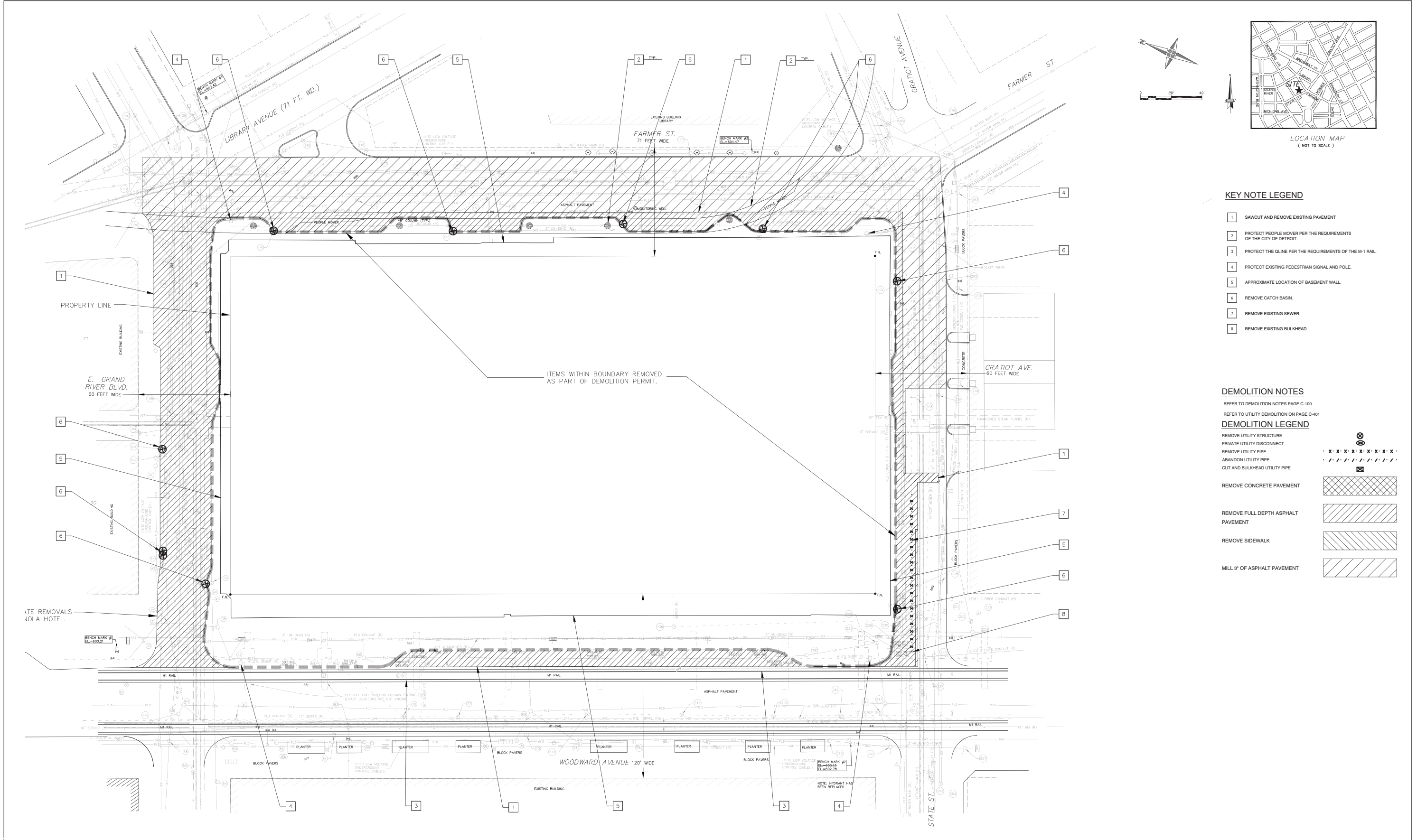


Figure 19. Section at Hotel Drop-off

## II. Plans and Elevations







KEY NOTE LEGEND

- 1 SAWCUT AND REMOVE EXISTING PAVEMENT
- 2 PROTECT PEOPLE MOVER PER THE REQUIREMENTS OF THE CITY OF DETROIT.
- 3 PROTECT THE CULINE PER THE REQUIREMENTS OF THE M-1 RAIL
- 4 PROTECT EXISTING PEDESTRIAN SIGNAL AND POLE.
- 5 APPROXIMATE LOCATION OF BASEMENT WALL.
- 6 REMOVE CATCH BASIN.
- 7 REMOVE EXISTING SEWER.
- 8 REMOVE EXISTING BULKHEAD.

DEMOLITION NOTES

REFER TO DEMOLITION NOTES PAGE C-100  
REFER TO UTILITY DEMOLITION ON PAGE C-401

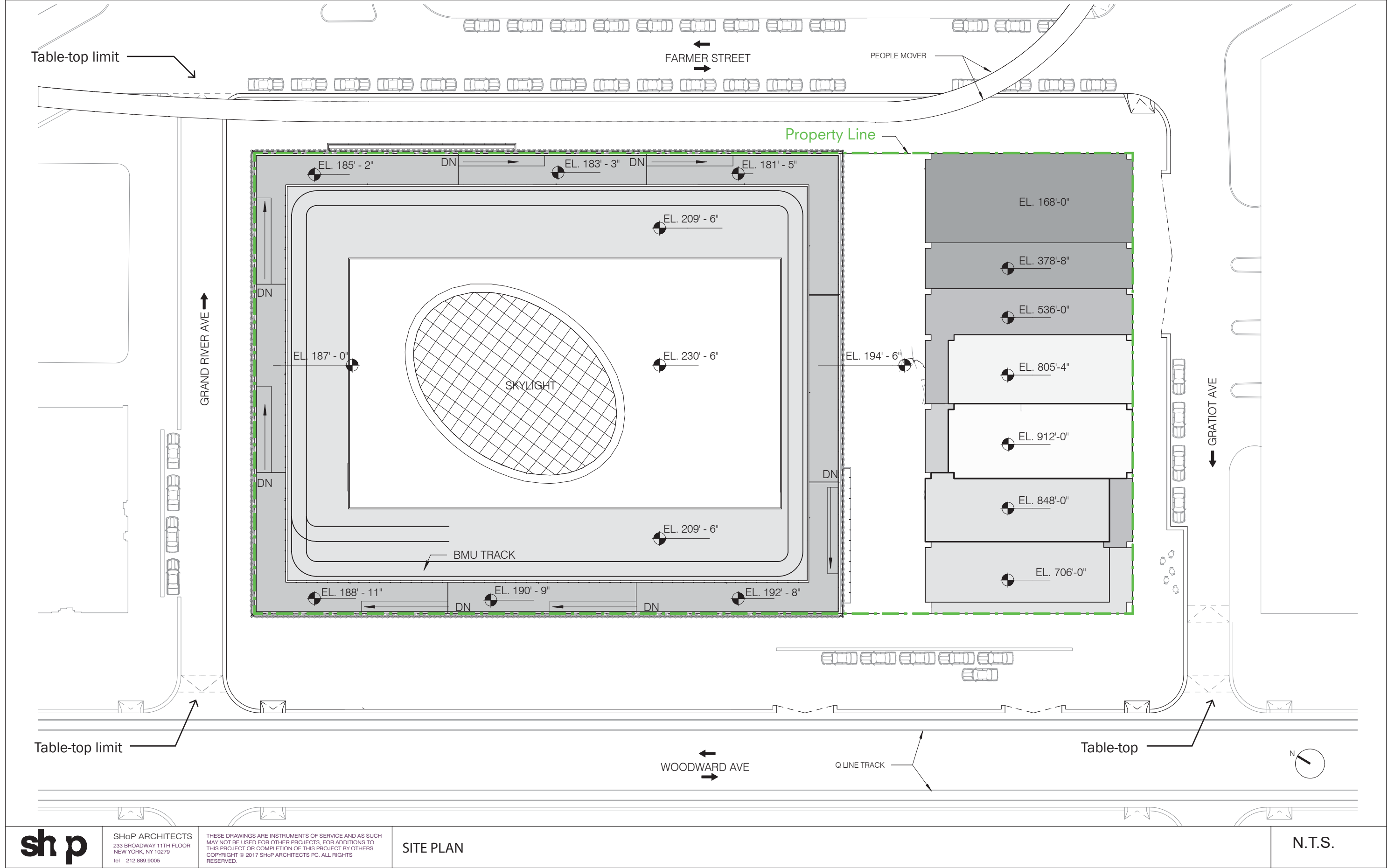
DEMOLITION LEGEND

- REMOVE UTILITY STRUCTURE
- PRIVATE UTILITY DISCONNECT
- REMOVE UTILITY PIPE
- ABANDON UTILITY PIPE
- CUT AND BULKHEAD UTILITY PIPE
- REMOVE CONCRETE PAVEMENT
- REMOVE FULL DEPTH ASPHALT PAVEMENT
- REMOVE SIDEWALK
- MILL 3" OF ASPHALT PAVEMENT

GIFFELS WEBSTER

SITE DEMOLITION PLAN

N.T.S.

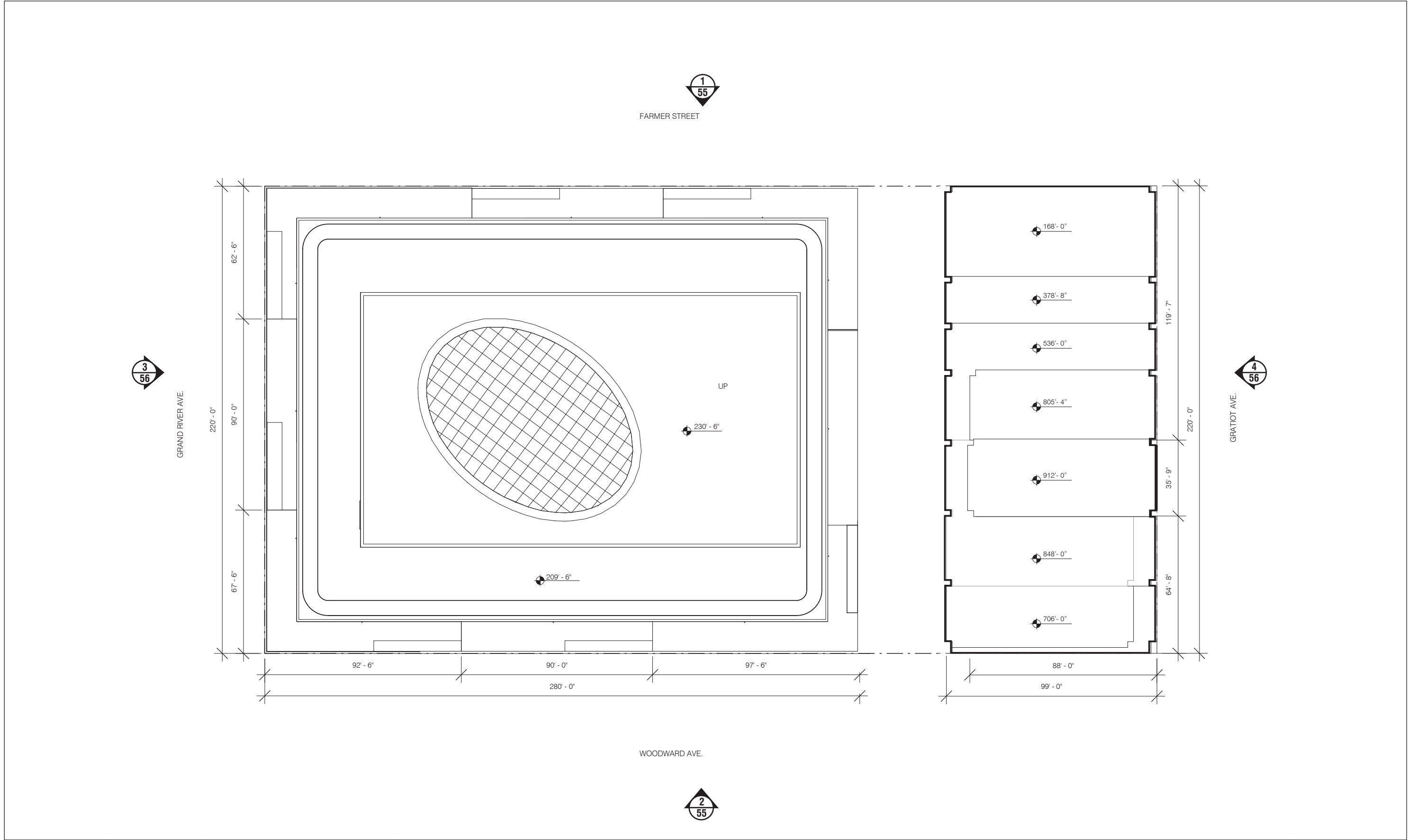


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SITE PLAN

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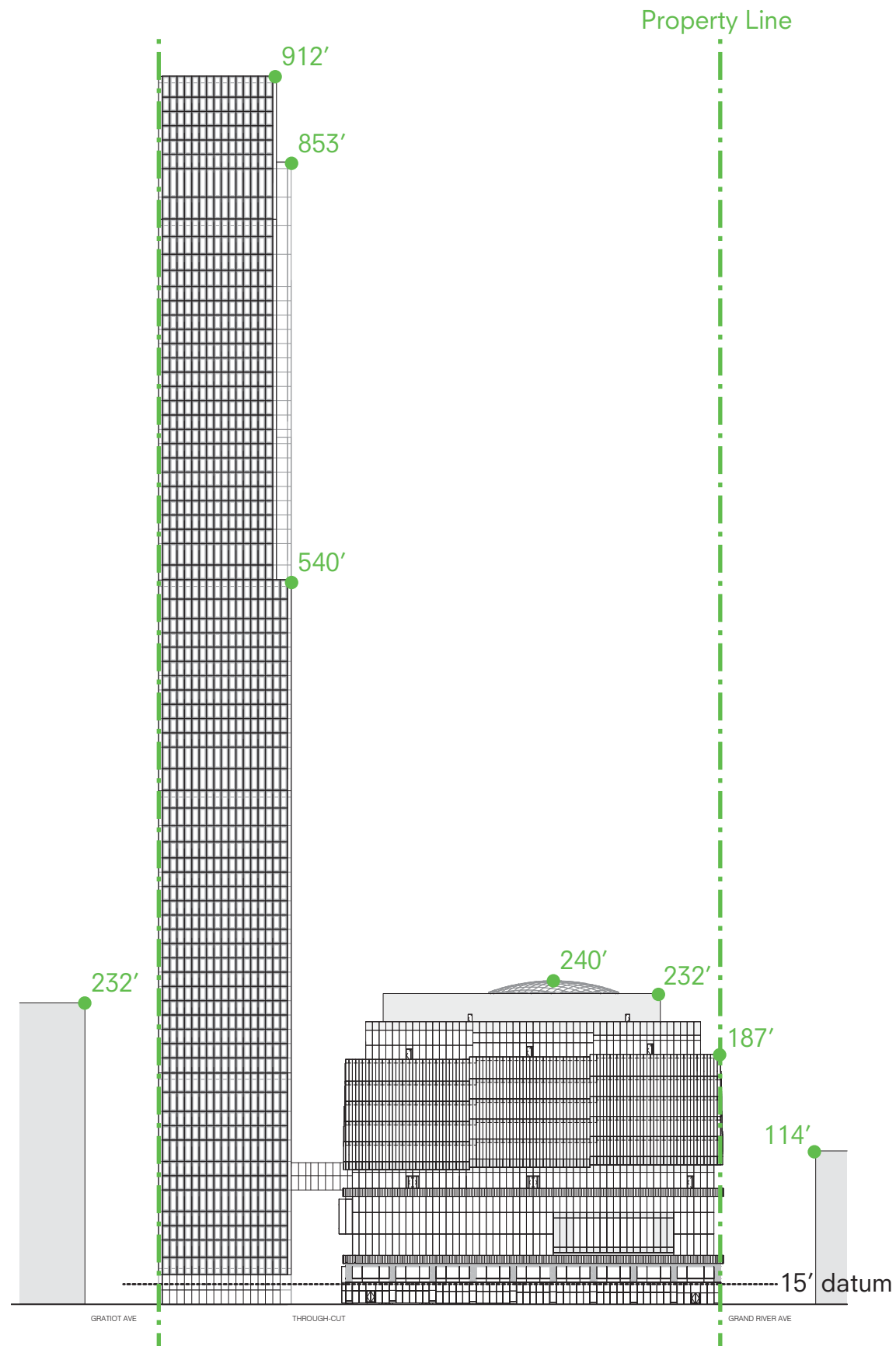


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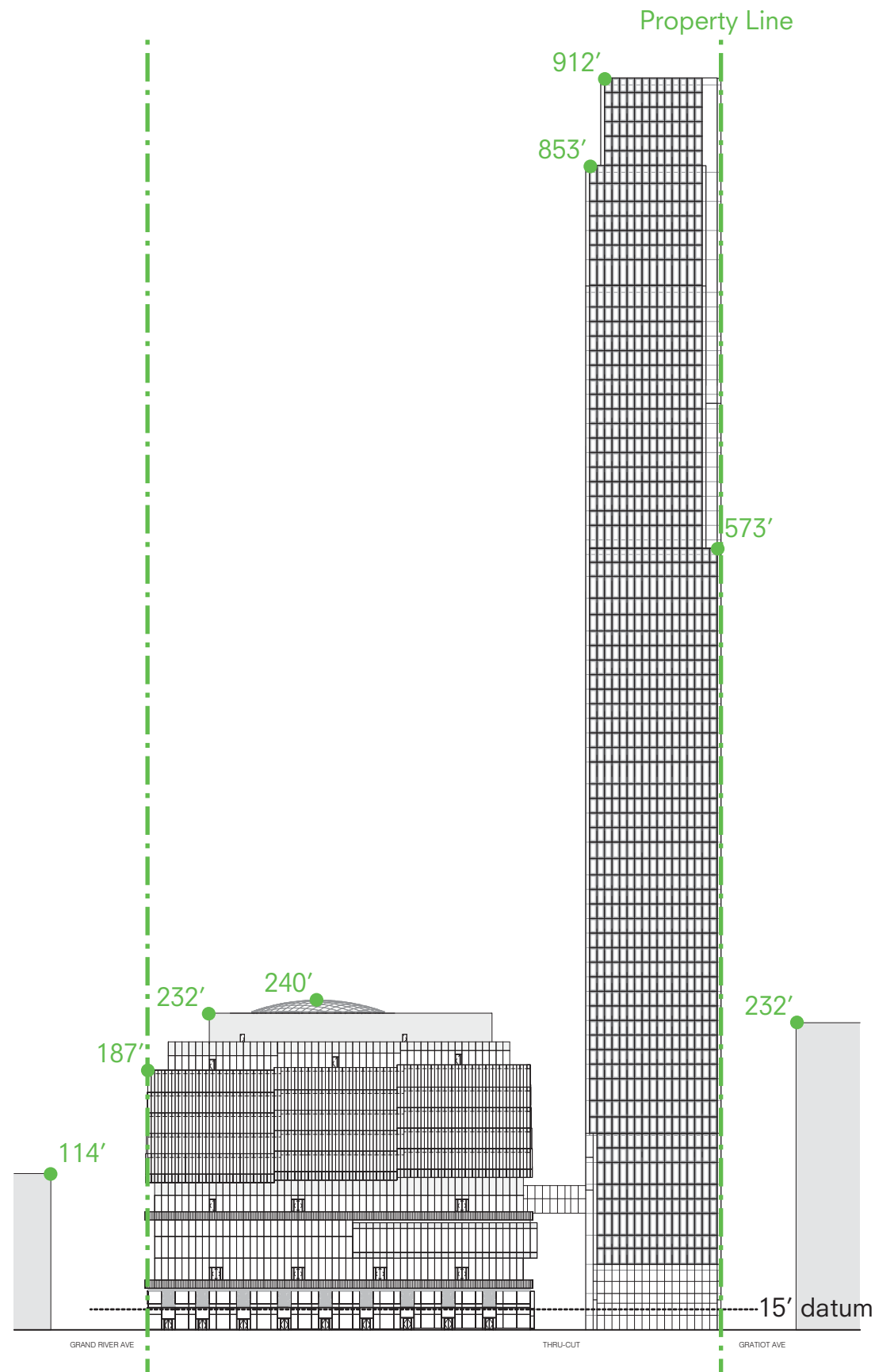
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ROOF PLAN

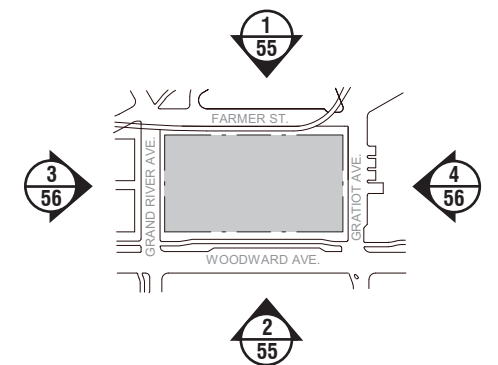
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① ELEVATION - NORTH



② ELEVATION - SOUTH



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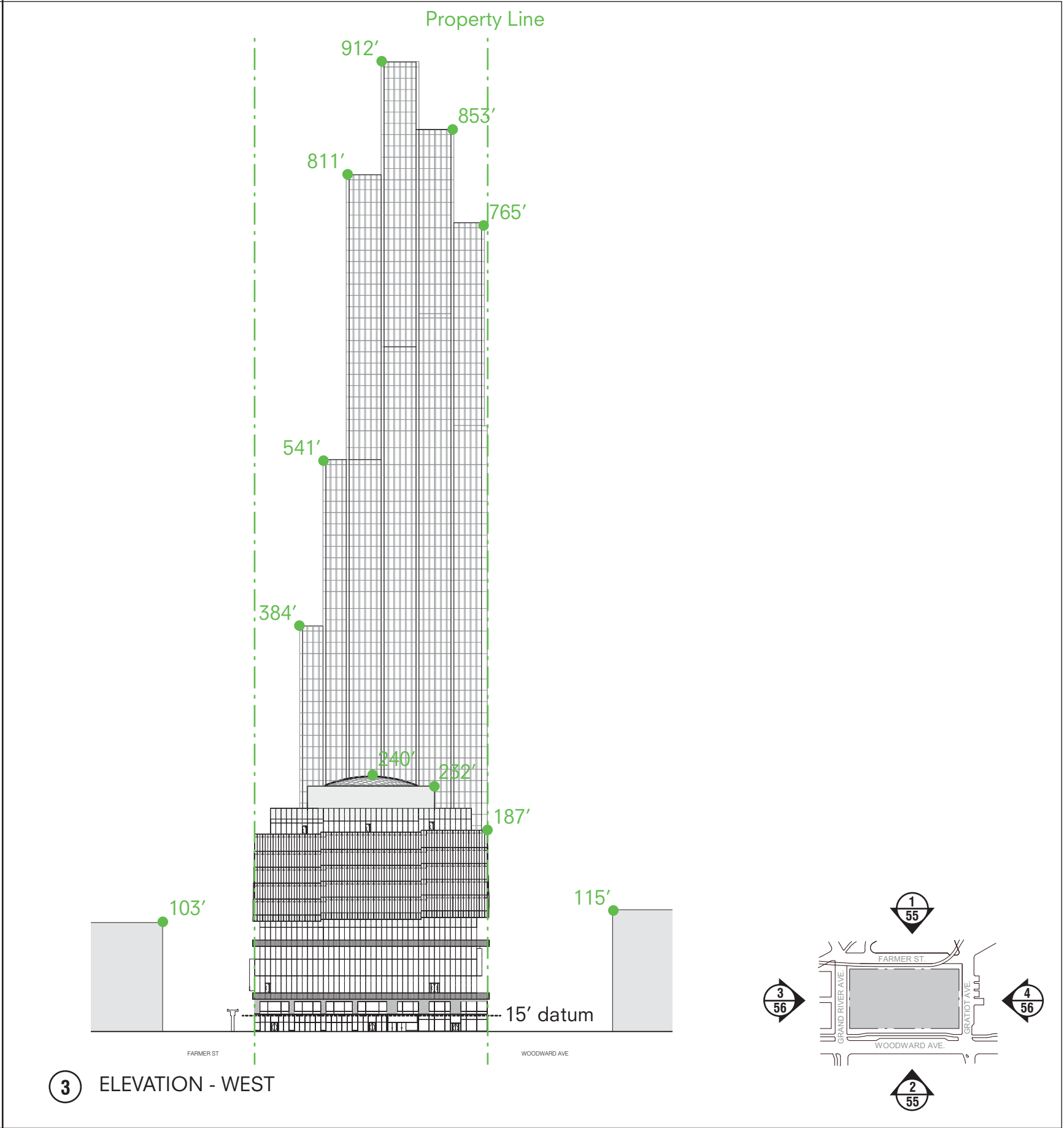
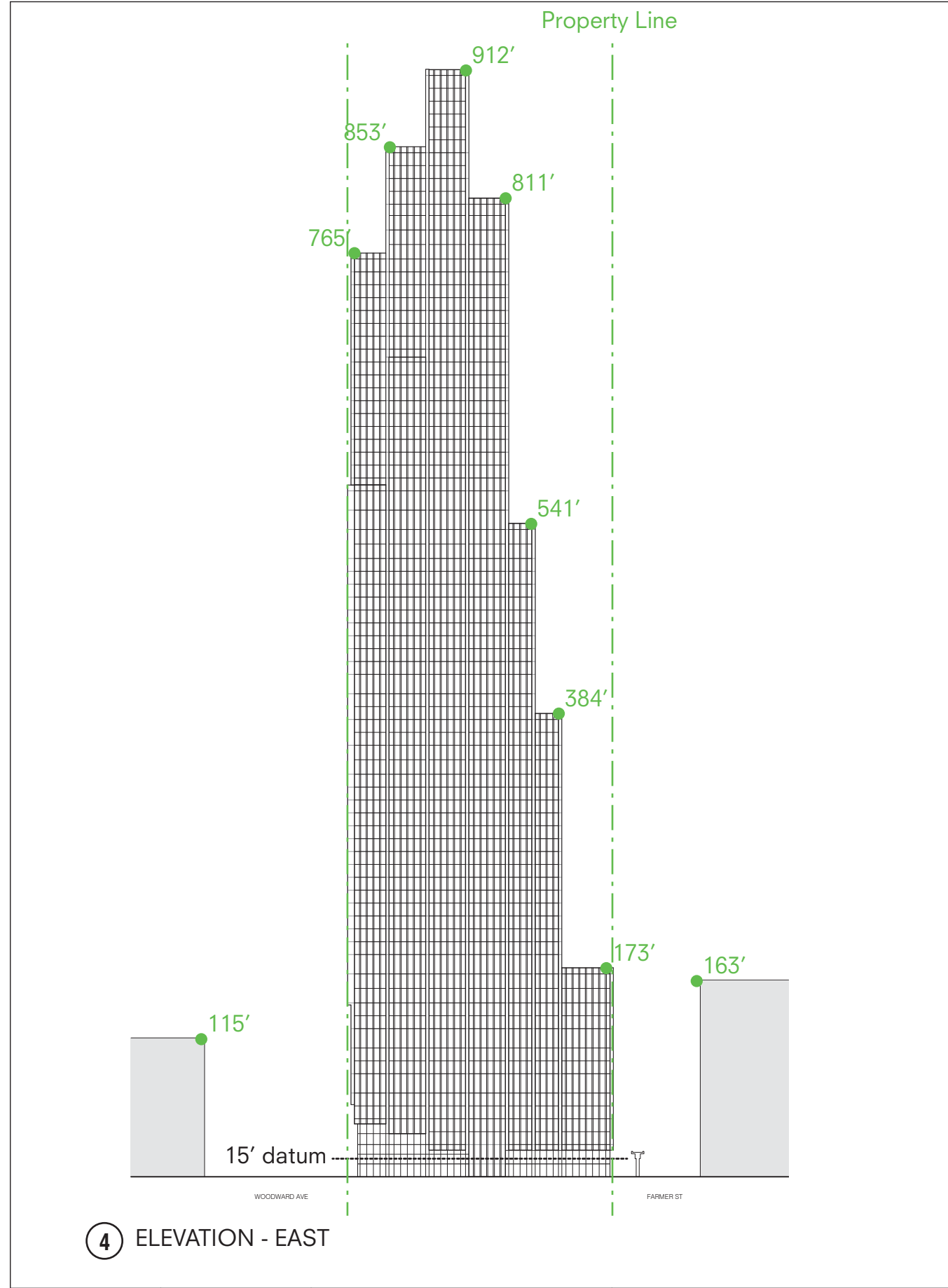
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OVERALL ELEVATIONS

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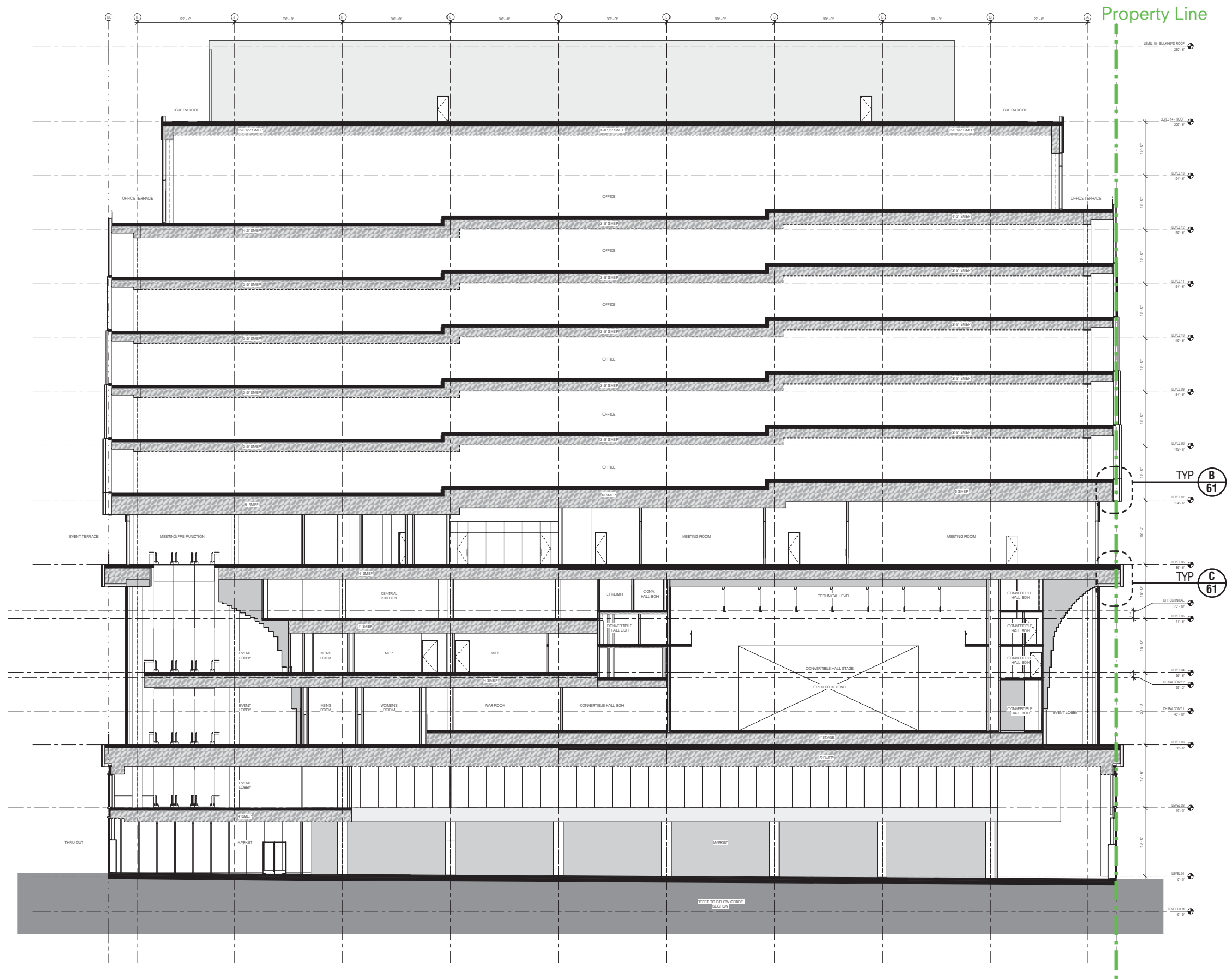
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# OVERALL ELEVATIONS

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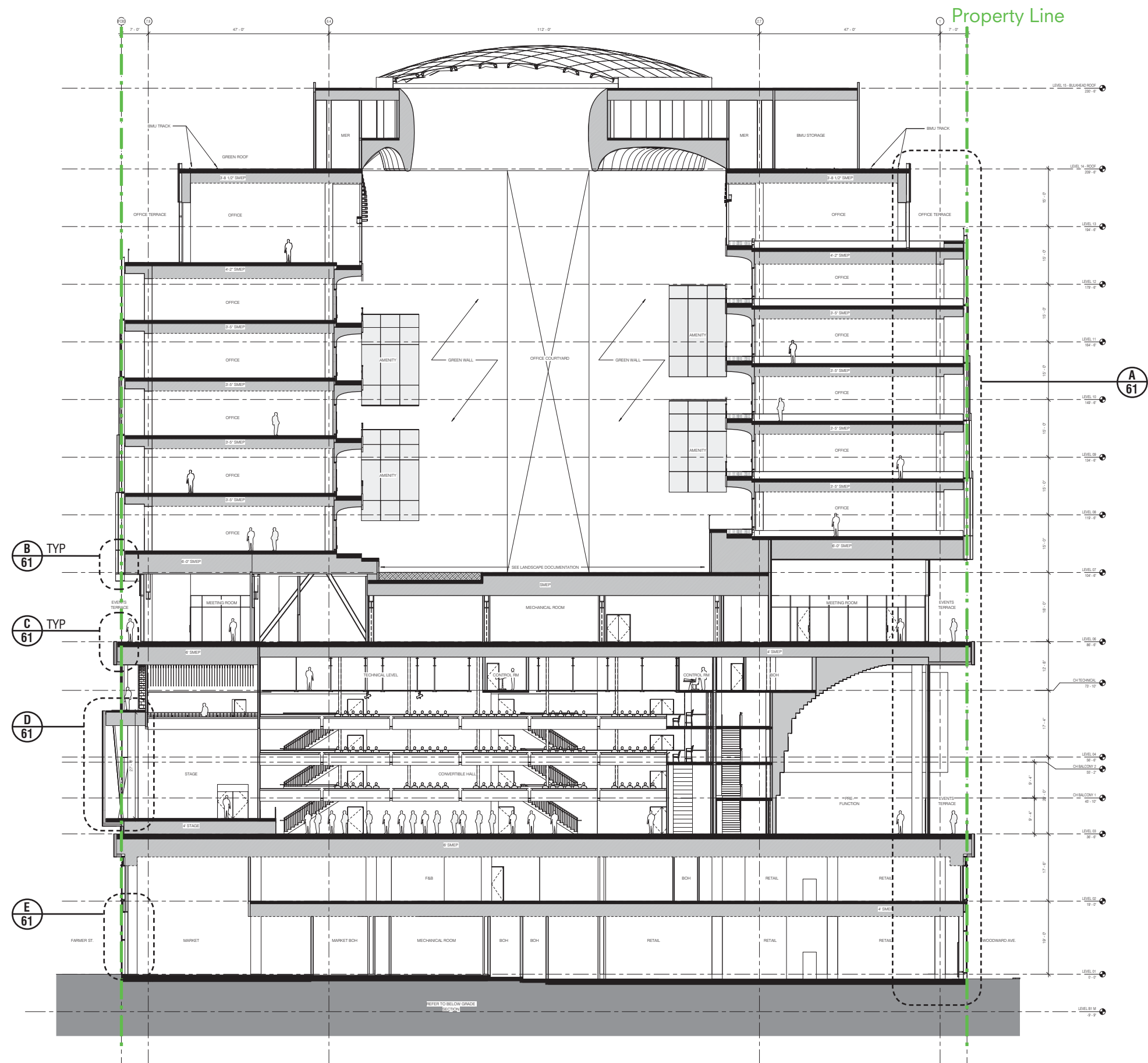


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## BLOCK - SECTION - NORTH/SOUTH 2

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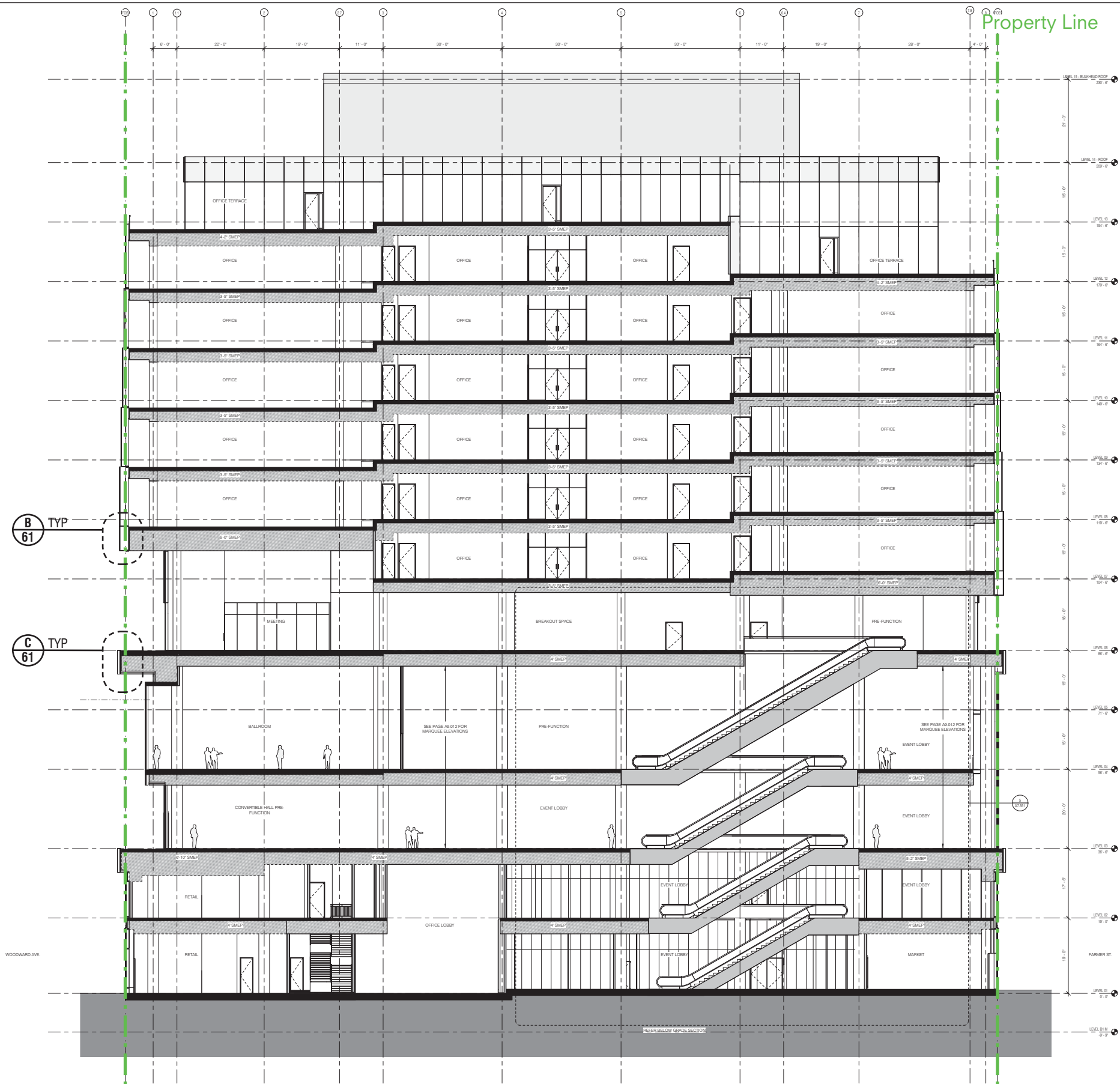
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## BLOCK - SECTION - EAST/WEST 1

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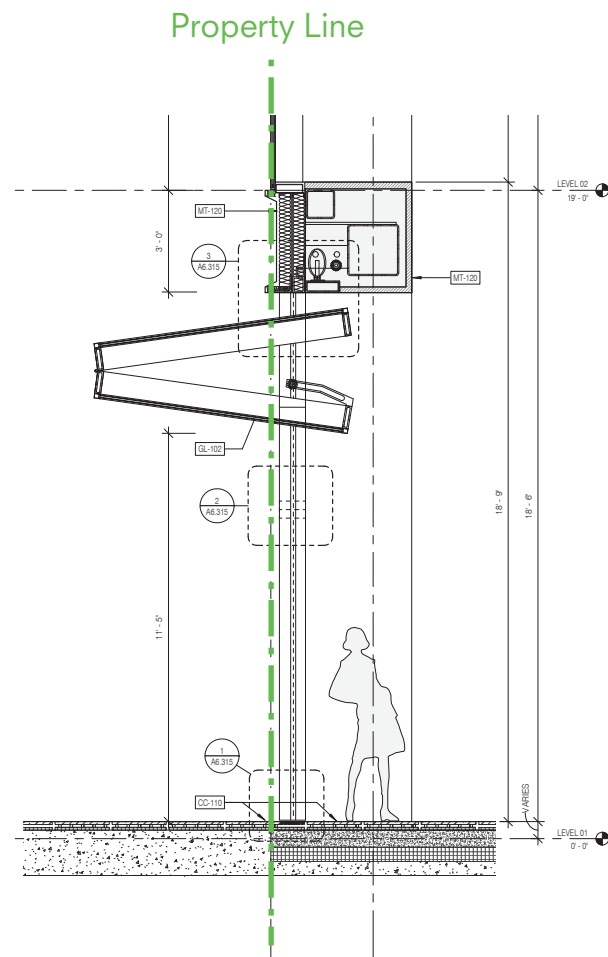
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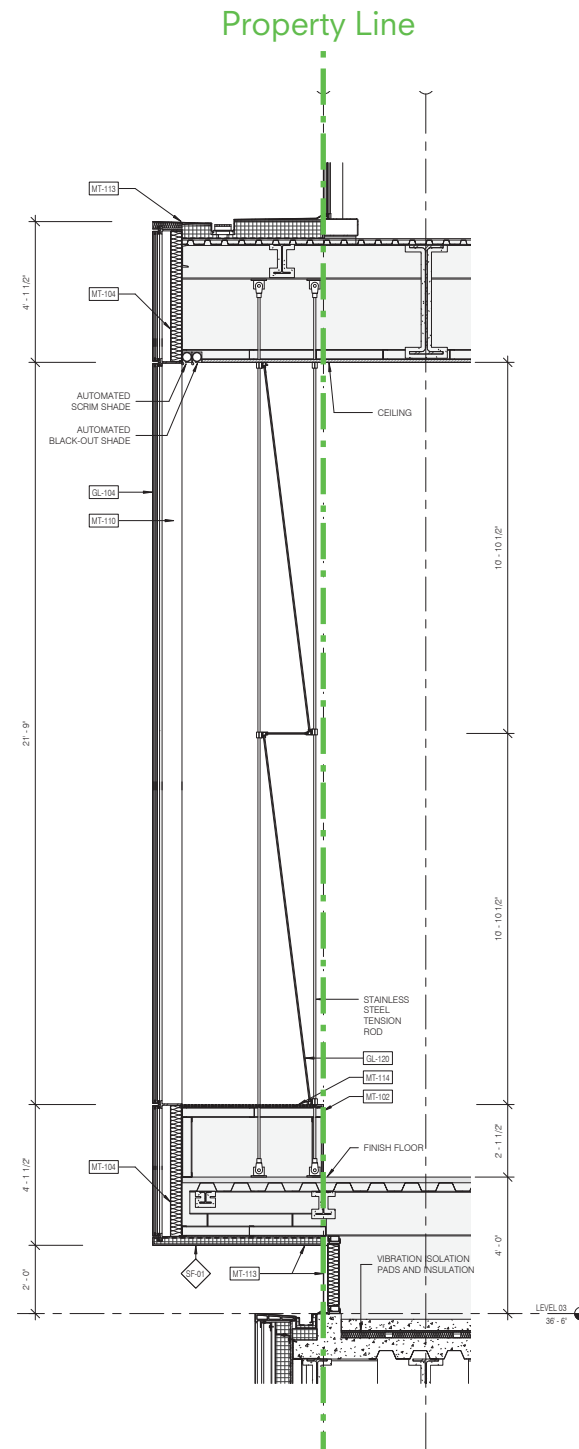
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BLOCK - SECTION - EAST/WEST 2

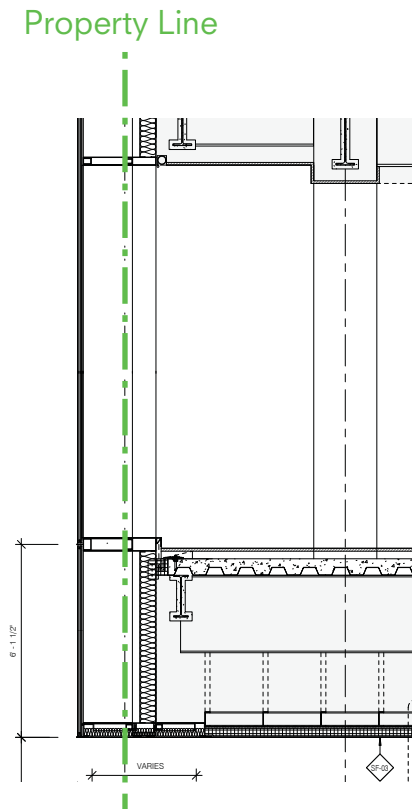
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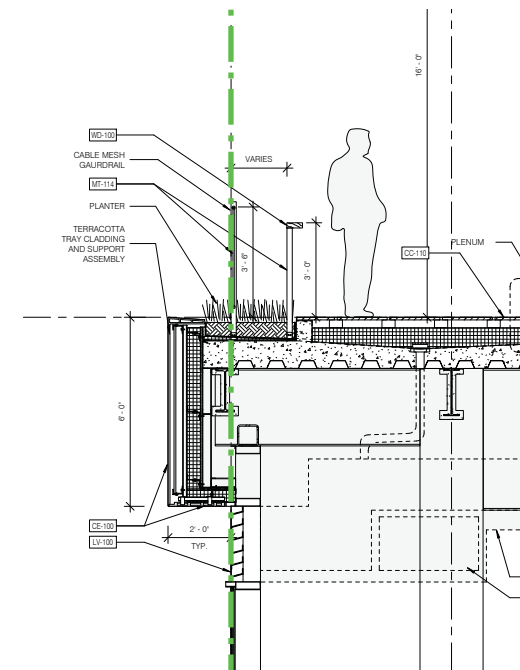
**E** BI-FOLD DOOR AT MARKET HALL (OPEN)



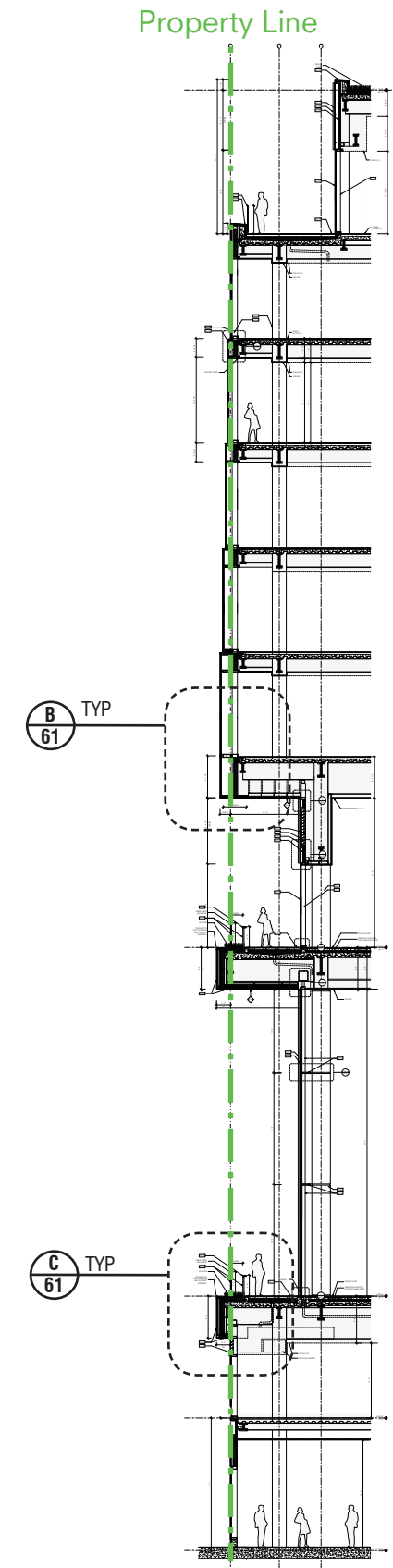
**D** CONVERTIBLE HALL SHADE & SCRIM



**B** BUILDING ARTICULATION AT OFFICE LEVELS (AT MAXIMUM PROJECTION)



**C** BUILDING ARTICULATION AT EVENT TERRACES (TYPICAL)



**A** TYPICAL SECTION AT WOODWARD AVENUE FACADE



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## BLOCK SECTIONS - PROJECTIONS BEYOND PROPERTY LINE

N.T.S.

# **III. Development Summary and Zoning Variance Request**

# Development Summary

## Land Use and Off-street Parking and Loading

MASTER PLAN FUTURE LAND USE	
CM - Major Commercial areas are generally distinguished by high-density office buildings with ground floor retail. Included within these areas may be department stores, specialized shops and services catering to area office or residential land uses. Areas should be accessible to mass transit routes and automobile parking located on the street or in structures. Ground level activity should be pedestrian-oriented. Downtown and New Center are Detroit’s major commercial areas.	
CURRENT LAND USE ZONING	
CURRENT	PROPOSED
B5 - Major Business District	B5 (no change)
PROPOSED LAND USES	
RESIDENTIAL USES	
Residential use combined in structures with permitted commercial uses	Conditional
PUBLIC, CIVIC & INSTITUTIONAL USES	
Museum (exhibition space)	By Right
RETAIL, SERVICE & COMMERCIAL USES	
Assembly hall (convertible hall, ballroom, meeting space)	By Right
Hotel, inside the Central business district	By Right
Office, business or professional	By Right
Parking structure having ground floor commercial space or other space oriented to pedestrian traffic	By Right
Restaurant, carry-out and fast-food (market)	By Right*
Restaurant, standard without drive-up or drive-through facilities	By Right
Stores of a generally recognized retail nature whose primary business is the sale of new merchandise without drive-up or drive-through facilities	By Right
*Sec 61-12-22 (8)(a) - Any carry-out or fast-food restaurant that is located in a multi-story building and integrated into a mixed-use or multi-tenant development, rather than a single use building, shall be a by-right use in the B5 and PCA districts.	

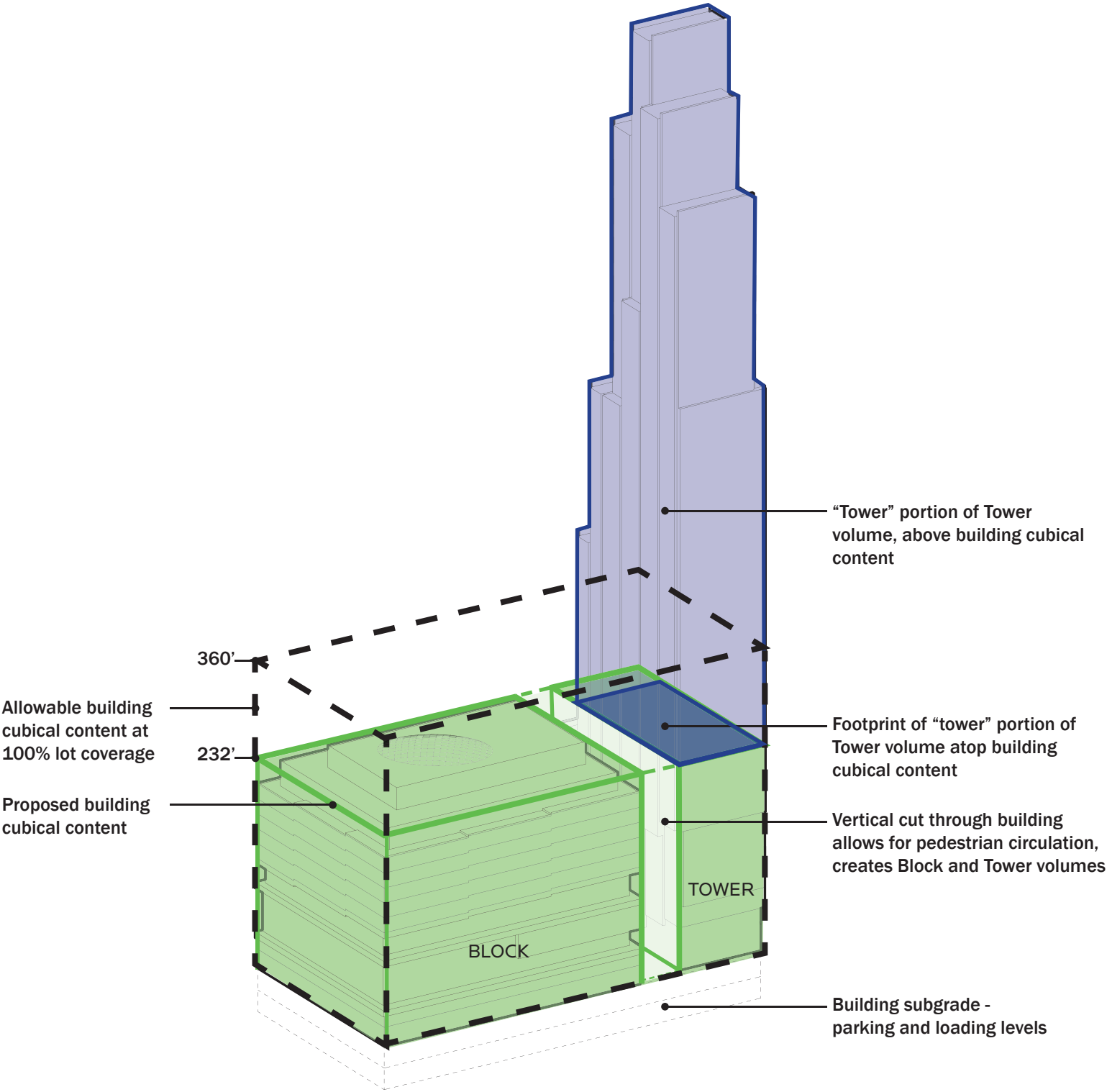
OFF-STREET PARKING		
Uses in the B5 District shall be exempt from off-street parking requirements, per Section 61-14-7.		
OFF-STREET LOADING		
USE	REQUIRED	PROVIDED
Multiple family dwelling with 24 or more units (244,392 SF)	1 (12x35) space 2 (12 x55) spaces	
Assembly (185,474 SF) (convertible hall, ballroom, meeting space)	1 (12x35) space 1 (12x55) space	
Museum (77,119 SF) (exhibition space)	1 (12x35) space	
Hotel (500,735 SF)	1 (12x35) space 4 (12x55) space	
Office (343,014 SF)	1 (12x35) space 2 (12x55) spaces	
Retail/Restaurant (73,283 SF)	3 (12x55) spaces	4 (12x35) spaces 2 (12x55) spaces = 6 total spaces (Note: Variance Required, see page 65)
TOTAL	5 (12x35) spaces 12 (12x55) space = 17 total spaces	



# Development Summary

## Intensity and Dimensional Standards

DIMENSIONAL STANDARDS		
B5: MULTIPLE FAMILY DWELLING	REQUIRED	PROVIDED
Minimum Lot Area	7,000 SF	92,421 SF (2.12 AC)
Minimum Lot Width	70'-0"	420'-0"
Minimum Front Setback (Woodward)	-	0'-0"
Minimum Rear Setback (Farmer)	20'-0"	64'-7" (at lowest residential level, Level 38)
Minimum Side Setback (Grand River and Gratiot)	-	0'-0"
Maximum Building Height	-	912'-0"
Maximum Lot Coverage %	-	+/- 87%
Maximum F.A.R.	-	15.4
DIMENSIONAL STANDARDS - B5: ALL OTHER USES		
No stated requirements.		
MISCELLANEOUS INTENSITY & DIMENSIONAL STANDARDS		
B5 DISTRICT	REQUIRED	PROVIDED
Maximum Cubical Content Standard Sec 61-13-121 (1)  Note: Woodward Ave ROW is 120' wide.	Maximum 33,271,560 CF = Lot area x 3 x 120'	+/- 18,884,336 CF = 81,398 SF x 232 FT  81,398 SF = simplified street-level footprint = 280 x 220 + 94.5 x 209.5  232 FT = elevation at top of building cubical content
Greatest Horizontal Dimension of "Tower" in any one horizontal plane (See figure at right for location of "Tower") Sec 61-13-121 (2a)	Maximum 60'-0" in any direction	177'-5"  (Note: Variance Required, see page 65)  Measured at first Tower level above building cubical content, Level 15
Maximum Gross Area of "Tower" Sec 61-13-121 (2b) (See figure at right for location of "Tower")	Maximum 23,105 SF = (.25) x 92,421	17,565 SF  Measured at first Tower level above building cubical content, Level 15
Setback from other towers on same building Sec 61-13-121 (3)	Minimum 60'-0"	N/A



**CUBICAL CONTENT DIAGRAM**  
Total CF of project, including base and tower, is less than maximum allowable cubicle content.

## IV. Code Summary

# Code Summary

## A. Applicable Codes

It will be necessary for the Hudson’s Site project to be designed in accordance with the codes adopted by the City of Detroit as listed below:

- State of Michigan Building Code (MBC) – 2015 Edition
- State of Michigan Fire Code (MFC) – 2015 Edition
- International Fire Code (IFC) – 2015 Edition
- ICC/ANSI A117.1
- Fair Housing Act (Safe Harbor to be specified by AOR)
- 2010 Standards for Accessible Design. Title III Rule of the Americans with Disabilities Act (ADA)

## B. Occupancy Classifications

The proposed project will contain the following occupancies in the podium and residential tower portions of the building (Section 302):

### Block

- A-1, Assembly – Convertible hall with fixed seating for viewing of performing arts or motion pictures.
- A-2, Assembly – Restaurants, banquet halls, cafés, bar lounges, and associated commercial kitchens with an occupant load of 50 persons or more and an area of 750 sf or more.
- A-3, Assembly – Multi-purpose assembly spaces, terraces, stages with an occupant load of 50 persons or more and an area of 750 sf or more.
- B, Business – Offices and multi-purpose assembly spaces with an occupant load of less than 50 persons and an area of less than 750 sf.
- Group M, Mercantile – Retail, Marketplace.
- S-1, Storage – Moderate hazard storage.
- S-2, Storage – Low hazard storage.

### Tower

- A-2, Assembly – Restaurants, banquet halls, cafés, bar lounges, and associated commercial kitchens with an occupant load of 50 persons or more and an area of 750 sf or more.
- A-3, Assembly – Multi-purpose assembly spaces, residential amenities (lounges, spas, pools, and fitness centers) with an occupant load of 50 persons or more and an area of 750 sf or more.
- B, Business – Offices and multi-purpose assembly spaces with an occupant load of less than 50 persons and an area of less than 750 sf.
- Group R-1, Residential – Hotel.
- Group R-2, Residential – Residential dwelling units.
- S-1, Storage – Moderate hazard storage.
- S-2, Storage – Low hazard storage.

## C. Construction Type & Height and Area Calculations

The Block and Tower building sections will be constructed and classified as a single high-rise building of Type IA construction. Type IA buildings are permitted to be of unlimited height and area.

The required fire resistance ratings of building elements for Type IA construction are outlined in the following table:

Construction Type IA (Table 601) <sup>4</sup>	
Structural Member	Fire Resistance Rating (In Hours)
	Type IA
Exterior nonbearing walls with a fire separation distance of <sup>1</sup> (Table 602):	
- less than 10 feet	2
- between 10 and 30 feet	1
- greater than 30 feet	0
Bearing walls and primary structural frame <sup>2</sup>	3
Nonbearing interior partitions	0

# Code Summary

Construction Type IA (Table 601) <sup>4</sup>	
Structural Member	Fire Resistance Rating (In Hours)
	Type IA
Floor construction	2
Roof construction	1.5 <sup>3</sup>
Exit stair enclosures and shafts (1023.2, 713.4)	2
Corridors (Table 1020.1) - Serving Group A, B, F, M, S occupancies - Serving Group R (708.3, Ex 1)	0 <sup>4</sup> 0.5
Elevator Lobbies (3006.2,710.3)	0
Fire Service Access Elevator Lobby	1
Fire Pumps (913.2.1)	2
Tenant Separations (508.3.3) Dwelling and Sleeping Unit Separations (708)	0 1

- 1

Separation distance is measured from the exterior wall to either the closest lot line, the centerline of a street, alley, or public way, or an imaginary line between two buildings on the same property. This does not apply to the exterior walls of the same building that face each other.
- 2

The primary structural frame includes columns, structural members and floor construction having direct connections to columns, and bracing members that essential to vertical stability of the primary structural frame under gravity loading (202).
- 3

For other than Group M and S-1 occupancies, fire protection of structural members is not required where every part of the roof construction is 20 feet or more above any floor immediately below.
- 4

The bond strength of SFRM in buildings greater than 420 feet in height must be 1,000 psf.

## D. Fire Protection and Life Safety Systems

1. Automatic sprinkler protection throughout installed per NFPA 13 – 2013 Edition.
2. Class I standpipe system installed per NFPA 14 – 2013 Edition.
3. Class III standpipe system for stages installed per NFPA 14 – 2013 Edition
4. Portable fire extinguishers installed per NFPA 10 – 2013 Edition
5. Smoke and heat detection in select locations for elevator recall, as required for atria smoke control, stair and elevator hoistway pressurization, residential dwelling units, hotel sleeping units, and mechanical, electrical, and plumbing rooms.
6. Emergency voice/alarm communication throughout installed per NFPA 72 – 2013 Edition
7. Manual fire alarm for hotel areas per NFPA 72 – 2013 Edition.
8. Fire department communication installed per the MFC and NFPA 72 – 2013 Edition
9. Pressurized stair shafts in accordance with MBC 909.20.
- 10.Pressurized elevator hoistways in accordance with MBC 3006.2
- 11.Atria smoke control system in accordance with MBC 404.5 and NFPA 92 – 2013 Edition
- 12.Stage smoke management in accordance with MBC 410.3.7
- 13.Post-fire smoke purge in accordance with MBC 403.4.7
- 14.Two fire service access elevators in accordance with Section 3007 (one each for Block and Tower).
- 15.Fire command center in accordance with MBC 911
- 16.Emergency lighting and exit signage provided as required by MBC
- 17.Emergency and standby power systems

## E. Means of Egress

The means of egress system for the new high-rise building will comply with the general means of egress provisions outlined in IBC Sections 403 and Chapter 10.



# Code Summary

## Exit Capacity and Occupant Load Factors

The following exit capacity factors will be applied because the building is protected throughout by automatic sprinklers and an emergency voice/alarm communication system:

- 0.15 inches per occupant for doors, ramps, and corridors (1005.3.2, Exception 1).
- 0.20 inches per person for stairs (1005.3.1, Exception 1).

The occupant load of each space will be evaluated based on the factors outlined below:

Function Of Space	Occupant Load Factor (Sf/OCC)
Assembly/Outdoor Terrace: - Unconcentrated table and chair seating - Concentrated chairs only seating - Standing space, dance floor - Fixed seats	15 net 7 net 5 net # seats
Business	100 gross
Exercise room -Without equipment in Marriott areas (LSC Table 7.3.1.2)	50 gross 15 net
Kitchen, commercial	100 gross
Locker room	50 gross
Mercantile	60 gross
Parking garages	200 gross
Residential	200 gross
Stages and platforms	15 net
Storage, mechanical, equipment rooms	300 gross

## Travel Distance

The exit access travel distance will comply with the following in accordance with Table 1017.2:

Occupancy Group	Max. Exit Access Travel Distance [ft]
Group A, M, R-1, R-2, S-1	250
Group B	300
Group S-2	400

## Dead End Corridors

The dead end corridors will comply with the following in accordance with Section 1020.4, Ex 2, or will be limited in length to not more than 2.5 times the least width of the corridor in accordance with Section 1020.4, Ex 3:

Occupancy Group	Max. Exit Access Travel Distance [ft]
Group B, M, R-1, R-2, S	50
Group A	20

## Common Path of Travel

Common path of travel will comply with the following in accordance with Table 1006.2.1:

Occupancy Group	Max. Exit Access Travel Distance [ft]
Group B, M, S	100
Group A -Fixed seating	75 35
Group R-2	125
Group R-1	75
Marriott Hotel	50*

\* Common path of travel is measured within the Group R-1 hotel guest room to the door to the corridor (LSC 28.2.5.4)

## Number of Exits

Each story or space will be provided with the minimum number of exits in accordance with Table 1006.3.1:

Number of Occupants	Max. Exit Access Travel Distance [ft]
100 to 500	2
501 to 1,000	3
Greater than 1,000	4

A redundant exit stair is required for buildings greater than 420-feet in height (403.5.2).

# Code Summary

Interlocking and scissor stair assemblies are classified as a single exit stair for the purposes of determining the number of exits from a floor; however, the stairs are permitted to be used to increase the exit capacity from the floor (1007.1.1).

## Assembly Main Exit

All assembly spaces with an occupant load of more than 300 persons will be provided with a main exit that is sized to accommodate at least 50 percent of the occupant load of the space (1029.2). Assembly buildings or spaces that will not have a well-defined main exit, or where multiple exits will be provided, the exits will be distributed around the perimeter to serve not less than 100 percent of the required exit capacity.

## Atrium Exit Stair

All exit stairways that are located within an atria atrium will be designed as unenclosed atrium exit stairways in accordance Section 1023.2, Exception.

Unenclosed atrium exit stairs will be used to comply with number of exits in the Block Office Courtyard atrium.

## Exit Remoteness

Where two means of egress (exits, exit access doorways, exit access stairways or ramps, or any combination thereof) are required, they will be located a distance apart equal to one-third (1/3) of the maximum overall diagonal distance of the building area served (1007.1.1, Exception 2). The distance will be measured in a straight line between the exits or exit access doors.

The separation distance will be measured along the shortest direct line of travel within a corridor where the corridor is enclosed in 1-hour fire-resistance rated construction (1007.1.1, Exception 1). Where three or more means of egress are required, a minimum of two are required to comply with the remoteness requirements listed above (1007.1.2). The exception to measure remoteness along a 1-hour fire-resistance rated exit access corridor is not permitted for Marriott hotel areas (LSC 7.5.1.3.4).

Interior exit stairs will also be separated by 30 feet or one-fourth (1/4) of the maximum overall diagonal distance measured in a straight line between the nearest points of the interior exit stairways in addition to the requirements above (403.5.1). Interlocking or scissor stairways will be counted as one interior exit stairway.

## Exit Discharge

Exits will be designed to discharge directly to the exterior of the building, or a maximum 50 percent of the number and capacity of vertical exits will be designed to discharge through a protected area

on the level of exit discharge. The 50 percent criteria will be met on a floor-by-floor basis, and all exits that discharge through the building the following will meet the following (1027.1, Exception 1):

- Free and unobstructed egress to an exterior exit that is visible from the point of exit stair termination.
- The entire area on the level of exit discharge is separated from areas below by 2-hour fire-resistance rated construction.
- All portions of the level of exit discharge are protected by automatic sprinklers.

## F. Luminous Egress Path Markings

Luminous egress path markings will be provided in the Block and Tower Podium areas that serve the Group A, B, M, and R-1 occupancies in high-rise buildings (1025.1). Luminous egress path markings are not required for exits, or portions thereof, that serve only Group R-2 occupancies.

## G. Accessible Means of Egress

Accessible spaces will be provided with at least two accessible means of egress where a minimum of two means of egress are required (1009.1). Accessible means of egress will be provided by enclosed stairways and elevators. Areas of refuge are not required, as permitted by Section 1009.3, Exception 5 because the building is protected throughout by an automatic sprinkler system.

At least one elevator will be provided from each floor as an accessible means of egress because the building will have accessible floors located more than four stories above the lowest level of exit discharge. The accessible means of egress elevators will be provided with emergency operation and standby power (403.4.8.3).

A two-way communication system will be provided at each elevator landing at each level that is one or more stories above or below the level of exit discharge (1009.8). The system will also include directions for use, audible and visual signals, identification of the device’s location and instructions for summoning assistance (1009.8.2, 1009.9).

## H. Stages and Platforms

Stages larger than 1,000 square feet in floor area will be provided with emergency ventilation in the form of either roof vents or a smoke control system (410.3.7). The stage area includes the entire performance area and adjacent backstage spaces not separated by fire resistance rated construction.